

MASTER NODE SELECTION IN CLUSTERED NODE CONFIGURATIONS

ABSTRACT

A method and system for selecting master nodes to manage a target node group in a computer network having multiple nodes and overlapping node groups. The system includes determining a hamming distance for node pairs within the network. The node pair includes two node pair members and the hamming distance is the number of node groups the node pair members do not share in common. A participation index for nodes within the network is determined at a determining operation. The participation index is the number of node groups the node belongs to. An availability potential for node pairs is also determined. The availability potential is the sum of the participation indexes of the node pair members subtracted by the hamming distance of the node pair. An optimal combination of node pairs is found by searching for the maximum total availability potential for the network. A master node pair for the target node group is selected from the optimal combination of node pairs. If a master node pair does not exist for the target node group, a master node belonging to the target node group is selected for the target group.